

Before The  
**FEDERAL COMMUNICATIONS COMMISSION**  
Washington, D.C.

In the matter of:	)	
	)	MM Docket 99-25
Creation of a Low Power Radio Service	)	RM-9208
	)	RM-9242
	)	
Amendment to Parts 73 and 90 of the	)	
Commission's Rules to Authorize the	)	RM-9719
Transmission of Emergency Signals on	)	
(FM Broadcast) Channel 200	)	
Establishment of an Emergency Radio	)	
Data System (ERDS)	)	
	)	

**REC NETWORK'S**  
**REPLY TO STATEMENT MADE BY FEDERAL SIGNAL**

1. *Overview.* Pursuant to §1.405(b) of the Commission's Rules, REC Networks ("REC") makes the following filing in response to statements made by Federal Signal Corp. ("FS") in their reply comments dated September 17, 1999.<sup>1</sup> REC Networks is a group of people who are interested in the establishment of the Low Power Radio Service and have made several filings on proceedings which affect the FM Broadcast Band.

2. *Service being proposed.* FS is proposing a one-watt low powered radio service, which uses voice and RDS technology<sup>2</sup>. This service would be operated nationwide on 87.9 MHz (Channel 200). These ERDS stations can be either fixed or mobile.<sup>3</sup>

---

1-Federal Signal Corp. ("FS") filed a petition for rulemaking, which was received by the Commission on August 2, 1999. This petition was routinely assigned RM-9719.

2 - Petition of Federal Signal Corporation ("RM-9719"), page 4.

3 - RM-9719, page 3.

3. *LPFM would make better use of Channel 200.* ERDS transmissions will be occasional and there is no guarantee that all public safety agencies will participate in ERDS. REC feels that the 10 watt operations proposed for community based Low Power FM (LPFM) radio stations would be able to provide community news, information and opinions to all community sizes from rural areas to urban cities. REC has asked for the use of Channels 198, 199 and 200 (87.5-87.9) to allow 10 watt stations to operate, especially in areas where no other channels are available. The REC SuperCoordinator program, which performed a nationwide frequency search for LPFM stations <sup>4</sup> was able to pre-coordinate 1,870 stations on Channel 200. Compared to the 7,578 stations that we pre-coordinated on 87.5 (Channel 198), 1,870 may not seem too many however REC has taken into consideration adjacent channel interference to FM Broadcast stations on 88.1 (Channel 201) and the TV aural carrier frequency of 87.75 MHz.

4. *This service is already available.* In some states, such as California, TIS stations operating in the AM broadcast band are only activated during a roadway emergency. <sup>5</sup> Motorists are advised to tune to the TIS station by the use of road signs with flashing lights which activate only during times the TIS is operating. Current rules in the Family Radio Service (FRS) <sup>6</sup> and the Citizen's Band (CB) radio service <sup>7</sup> also allow for one-way communications for emergency communications and traveler's assistance.

---

4 - Amendment To Comments from REC Networks (July 16, 1999).

5 - Along many urban and rural highways in California, you will encounter advisory signs stating "ROAD INFORMATION, TUNE TO \_\_\_\_\_ AM WHEN LIGHTS ARE FLASHING".

6 - §95.193 (a) and (d)

7 - §95.413 (c)

5. *ERDS is vulnerable to "abuses"*. During the holiday periods, some highway departments (such as the Arizona Department of Transportation) will place public service announcements on their electronic message signs. Most of these are related to driving under the influence <sup>8</sup>. What is to stop an over-ambitious public safety agency from broadcasting this message on their ERDS station? This will cause a severe impact on broadcasters, both full power and low power. If ERDS is approved in its present form, there must be a provision in the radio receiver which allows the end-user to disable the ERDS mode.

6. *Alternative spectrum should be considered for this proposal*. As much as we feel that this service would be a substantial benefit to public safety, we may want to consider different spectrum for this service. Alternate spectrum can be warranted since this technology requires the purchase of a new radio receiver in order to take advantage of the ERDS system. REC recommends that one of the following bands be considered for this service:

- Existing TIS facilities. <sup>9</sup>
- The underused Auxiliary Broadcast (Part 74) channels in the 25 & 26 MHz band. <sup>10</sup>
- Frequencies within the CB band. <sup>11</sup>
- Higher powered transmitters in the 49 MHz "personal devices" band.
- Existing channels in the Public Safety Pools (especially those channels designated as "mobile only" and/or have power restrictions).
- Reallocate a channel or channels from Government to Non-Government in the 162 MHz band to have the ERDS operation close to the existing NOAA weather broadcasts.
- Channels in the 462 & 467 MHz bands, which are allocated to the Family Radio Service (FRS). <sup>12</sup>
- Channel or channels in the newly designated Public Safety spectrum which will be operating in spectrum previously occupied by TV Channels 60 through 69.
- 902-928 MHz. <sup>13</sup>

7. *Additional technology can be added to make this service work in-band.* If the Commission wishes to keep ERDS within or adjacent to the FM broadcast band, we may wish to look at a scheme which would permit the ERDS transmitter to be agile in the FM broadcast band. Additional components in the transmitter such as Global Positioning Satellite (GPS) systems can be used to determine the location of the transmitter at the time of the incident and assign a frequency. This way, the police officer or highway department official who would be operating the ERDS would not have to decide which frequency the transmitter would operate on. The end user's receiver can scan the entire FM broadcast band for the ERDS signal and then activate the receiver. In lieu of GPS, the transmitter can first scan each channel and determine the best channel to use based on field strength of the intended channel and the first adjacent channels. In the event that no channels are available between 88.1 and 107.9 and there is a suitable channel between 87.5 and 87.9, the ERDS system can operate there. ERDS stations would be secondary to full power, future-LPFM, future-ISERS <sup>14</sup> and translators operating in the FM broadcast band.

---

8 - "Get hammered, get nailed."

9 - TIS stations could be activated by a short data burst on a nationwide Public Safety frequency, such as 155.475. This data burst could activate the radio and re-tune the receiver to the proper AM frequency.

10 - Channels between 25.87 and 26.48 MHz are currently allocated to the Auxiliary Broadcast Service (under Part 74). Even though this spectrum does have licenses, it is severely underutilized. Channels between 25.87 and 26.09 are also assigned internationally to shortwave broadcasting. We feel that stations operating at power levels proposed by FS will not cause harm to the International Broadcasting Service.

11 - §95.413(c) allows the use of CB frequencies for one way communications relating to emergency messages and travelers assistance.

12 - §95.193(a) allows for the use of FRS channels for one way communications relating to emergency messages and travelers assistance.

13 - This band is used in many urban areas by the Radiolocation service. It is also allocated to Government stations on a primary basis and the Amateur Radio Service on a secondary basis. This band is also used by Part 15 cordless devices.

14 - RM-9682, creation of an Indoor Sports Entertainment Radio Service.

8. *Conclusion.* REC supports Federal Signal's intentions of providing this vital service, however we feel that providing this service on a fixed nationwide FM frequency <sup>15</sup> would preclude future LPFM and displace Class-D NCE stations from currently using or migrating to Channel 200. We feel that the Commission should look at alternative plans for this service including different spectrum or agile operation within the FM band. REC feels that the assignment of Channel 200 (as well as Channels 198 and 199) are vital to the growth of LPFM stations for non-commercial community groups, local governments, churches and high schools. We feel that ERDS can co-exist in the FM band using agile transmitters but we feel that there is plenty of space in the Public Safety pool for this low power service.

Respectfully Submitted,

Richard-Michelle Eyre  
REC Networks  
PO Box 2408  
Tempe, AZ 85280-2408  
rec@recnet.com  
<http://www.recnet.com/rec/lpfm>

24 September 1999

---

15 - In the 99-25 NPRM at 7, Nick Leggett proposed to have a single national AM and FM channel for Low Power FM as proposed in RM-9208. He later amended his comments in part, to eliminate the single channel methodology.

**CERTIFICATE OF SERVICE**

REC has served a copy of this filing upon the following:

FEDERAL SIGNAL CORPORATION

Its Attorneys

Gardner, Carton & Douglas

1301 K Street NW

Suite 900, East Tower

Washington DC 20005